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CLAIMS

- 1 A method of diagnosis of stroke or the possibility thereof in a subject
suspected of suffering from stroke, which comprises determining the concentration of
5 at least one polypeptide selected from Apo C-III, Serum Amyloid A, Apo C-I,
Antithrombin III fragment and Apo A-I in a sample of body fluid taken from the
subject.
- 2 A method according to claim 1, in which the polypeptide is differentially
10 contained in the body fluid of stroke-affected subjects and non-stroke-affected
subjects, and the method includes determining whether the concentration of
polypeptide in the sample is consistent with a diagnosis of stroke.
- 3 A method according to claim 1 or 2, in which an antibody to the polypeptide is
15 used in the determination of the concentration.
- 4 A method according to any of Claims 1 to 3, in which the body fluid is
cerebrospinal fluid, plasma, serum, blood, tears or urine.
- 20 5 A method according to any of Claims 1 to 4, in which the determination of the
concentration of the polypeptide is used to determine whether a diagnosed stroke is of
the ischaemic or haemorrhagic type.
- 25 6 A method according to any of Claims 1 to 5, which comprises subjecting a
sample of body fluid taken from the subject to mass spectrometry, thereby to
determine a test amount of the polypeptide in the sample, wherein the polypeptide is
differentially contained in the body fluid of stroke-affected subjects and non-stroke-
affected subjects; and determining whether the test amount is consistent with a
diagnosis of stroke.

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7 A method according to any of Claims 1 to 6, in which the polypeptide is present in the body fluid of stroke-affected subjects and not present in the body fluid of non-stroke-affected subjects, whereby the presence of the polypeptide in a body fluid sample is indicative of stroke.

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8 A method according to any of Claims 1 to 6, in which the polypeptide is not present in the body fluid of stroke-affected subjects and present in the body fluid of non-stroke-affected subjects, whereby the non-presence of the polypeptide in a body fluid sample is indicative of stroke.

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9 A method according to any of Claims 6 to 8, in which the mass spectrometry is laser desorption/ionization mass spectrometry.

10 A method according to any of Claims 6 to 9, in which the sample is adsorbed
15 on a probe having an immobilised metal affinity capture (IMAC), hydrophobic, strong anionic or weak cationic exchange surface capable of binding the polypeptide.

11 A method according to any of Claims 6 to 10, in which the polypeptide is determined by surface-enhanced laser desorption/ionisation (SELDI) and time of
20 flight mass spectrometry (TOF-MS).

12 A method according to any of Claims 1 to 11, in which a plurality of peptides is determined in the sample.

25 13 Use of a polypeptide selected from Apo C-III, Serum Amyloid A, Apo C-I, Antithrombin III fragment and Apo A-I, or a combination of such polypeptides, for diagnostic, prognostic and therapeutic applications relating to stroke.

14 Use according to Claim 13, in which the polypeptide is differentially
30 contained in a body fluid of stroke-affected subjects and non-stroke-affected subjects.

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- 15 Use for diagnostic, prognostic and therapeutic applications, relating to stroke,
of a material which recognizes, binds to or has affinity for a polypeptide selected
from Apo C-III, Serum Amyloid A, Apo C-I, Antithrombin III fragment and Apo A-I.
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- 16 Use according to Claim 15 of a combination of materials, each of which
recognizes, binds to or has affinity for a polypeptide selected from Apo C-III, Serum
Amyloid A, Apo C-I, Antithrombin III fragment and Apo A-I.
- 10 17 Use according to Claim 15 or 16, in which the or each material is an antibody
or antibody chip.
- 18 Use according to Claim 17, in which the material is an antibody to Apo C-III.
- 15 19 Use according to Claim 17, in which the material is an antibody to Serum
Amyloid A.
- 20 Use according to Claim 17, in which the material is an antibody to Apo C-I.
- 20 21 Use according to Claim 17, in which the material is an antibody to
Antithrombin III fragment.
- 22 Use according to Claim 17, in which the material is an antibody to Apo A-I.
- 25 23 An assay device for use in the diagnosis of stroke, which comprises a solid
substrate having a location containing a material which recognizes, binds to or has
affinity for a polypeptide selected from Apo C-III, Serum Amyloid A, Apo C-I,
Antithrombin III fragment and Apo A-I.

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- 24 An assay device according to Claim 23, in which the solid substrate has a plurality of locations each respectively containing a material which recognizes, binds to or has affinity for a polypeptide selected from Apo C-III, Serum Amyloid A, Apo C-I, Antithrombin III fragment and Apo A-I.
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- 25 An assay device according to Claim 23 or 24, in which the material is an antibody or antibody chip.
- 26 An assay device according to Claim 25, which has a unique addressable
10 location for each antibody, thereby to permit an assay readout for each individual polypeptide or for any combination of polypeptides.
- 27 An assay device according to any of Claims 23 to 26, including an antibody to Apo C-III.
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- 28 An assay device according to any of Claims 23 to 26, including an antibody to Serum Amyloid A.
- 29 An assay device according to any of Claims 23 to 26, including an antibody to
20 Apo C-I.
- 30 An assay device according to any of Claims 23 to 26, including an antibody to Antithrombin III.
- 25 31 An assay device according to any of Claims 23 to 26, including an antibody to Apo A-I.
- 32 A kit for use in diagnosis of stroke, comprising a probe for receiving a sample of body fluid, and for placement in a mass spectrometer, thereby to determine a test
30 amount of a polypeptide in the sample, wherein the polypeptide is selected from Apo

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C-III, Serum Amyloid A, Apo C-I, Antithrombin III fragment and Apo A-I, or any combination thereof.

33 A kit according to Claim 32, in which the probe contains an adsorbent for
5 adsorption of the polypeptide.

34 A kit according to Claim 33, further comprising a washing solution for
removal of unbound or weakly bound materials from the probe.

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